

Camelot Learning  
Computation  
Correlation to the Ohio Public Schools' Performance Standards

Lesson Numbers and Quest	Content Standard	Grade	Grade Level Indicators
<b>Lessons 1, 2</b> How can you use your knowledge of the commutative property to recall basic addition facts?	Number, Number Sense and Operations  Patterns, Functions and Algebra	2  2  3	<ul style="list-style-type: none"> <li>• Model and use the commutative property for addition.</li> <li>• Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> <li>• Use patterns to make predictions, identify relationships, and solve problems.</li> </ul>
<b>Lessons 3, 4</b> How can you use the strategy “Make a Ten” to add and subtract facts to 18?	Number, Number Sense and Operations  Patterns, Functions and Algebra	2  1  1  4	<ul style="list-style-type: none"> <li>• Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> <li>• Develop strategies for basic addition facts, such as make ten and using tens frames.</li> <li>• Develop strategies for basic subtraction facts, such as using tens frames.</li> <li>• Represent and analyze patterns and functions using words, tables and graphs.</li> </ul>
<b>Lessons 5, 6</b> How can you use mental math strategies to find sums and differences without doing the written problems in your head?	Number, Number Sense and Operations	4  4  2  2	<ul style="list-style-type: none"> <li>• Develop and explain strategies for performing computations mentally.</li> <li>• Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> <li>• Demonstrate multiple strategies for adding and subtracting 2- or 3-digit whole numbers, such as:               <ol style="list-style-type: none"> <li>a. compatible numbers;</li> <li>b. compensatory numbers;</li> </ol> </li> <li>• Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> </ul>

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	Patterns, Functions and Algebra	4	<ul style="list-style-type: none"> <li>• Represent and analyze patterns and functions using words, tables and graphs.</li> </ul>
<p><b>Lessons 7, 8</b> How can your knowledge of rounding and estimating help you solve multi-digit addition and subtraction problems?</p>	Number, Number Sense and Operations	<p>4</p> <p>4</p> <p>4</p> <p>3</p> <p>3</p> <p>2</p> <p>2</p> <p>2</p>	<ul style="list-style-type: none"> <li>• Round whole numbers to a given place value.</li> <li>• Solve problems involving counting money and making change, using both coins and paper bills.</li> <li>• Estimate the results of computations involving whole numbers, fractions and decimals, using a variety of strategies.</li> <li>• Use place value concepts to represent whole numbers and decimals using numerals, words, expanded notation and physical models.</li> <li>• Evaluate the reasonableness of computations based upon operations and the numbers involved; e.g., considering relative size, place value and estimates.</li> <li>• Demonstrate multiple strategies for adding and subtracting 2- or 3-digit whole numbers, such as: <ul style="list-style-type: none"> <li>a. compatible numbers;</li> <li>b. compensatory numbers;</li> </ul> </li> <li>• Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> <li>• Represent and write the value of money using the ¢ sign and in decimal form when using the \$ sign.</li> </ul>
<p><b>Lessons 9, 10</b> How can you use mental math strategies to solve multi-digit whole number strategies in your head?</p>	Number, Number Sense and Operations	<p>4</p> <p>4</p> <p>3</p>	<ul style="list-style-type: none"> <li>• Develop and explain strategies for performing computations mentally.</li> <li>• Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> <li>• Add and subtract whole numbers with and without regrouping.</li> </ul>

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		3	<ul style="list-style-type: none"> <li>• Evaluate the reasonableness of computations based upon operations and the numbers involved; e.g., considering relative size, place value and estimates.</li> </ul>
<p><b>Lessons 11, 12</b> How does understanding place value help you when you are adding and subtracting numbers that have more than one digit?</p>	<p>Number, Number Sense and Operations</p>	2	<ul style="list-style-type: none"> <li>• Demonstrate multiple strategies for adding and subtracting 2- or 3-digit whole numbers, such as:               <ol style="list-style-type: none"> <li>a. compatible numbers;</li> <li>b. compensatory numbers;</li> </ol> </li> </ul>
		2	<ul style="list-style-type: none"> <li>• Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> </ul>
		4	<ul style="list-style-type: none"> <li>• Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> </ul>
		3	<ul style="list-style-type: none"> <li>• Add and subtract whole numbers with and without regrouping.</li> </ul>
		3	<ul style="list-style-type: none"> <li>• Evaluate the reasonableness of computations based upon operations and the numbers involved; e.g., considering relative size, place value and estimates.</li> </ul>
		2	<ul style="list-style-type: none"> <li>• Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> </ul>
		2	<ul style="list-style-type: none"> <li>• Use place value concepts to represent, compare and order whole numbers using physical models, numerals and words, with ones, tens and hundreds. For example:               <ol style="list-style-type: none"> <li>a. Recognize 10 can mean “10 ones” or a single entity (1 ten) through physical models and trading games.</li> <li>b. Read and write 3-digit numerals (e.g., 243 as two hundred forty three, 24 tens and 3 ones, or 2 hundreds and 43 ones, etc.) and construct models to represent each.</li> </ol> </li> </ul>

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<p><b>Lessons 13, 14</b> How can you use your knowledge of place value to help you compare and order large numbers?</p>	<p>Number, Number Sense and Operations</p>	<p>4  3  2  2</p>	<ul style="list-style-type: none"> <li>• Use place value structure of the base-ten number system to read, write, represent and compare whole numbers through millions and decimals through thousandths.</li> <li>• Use mathematical language and symbols to compare and order; e.g., less than, greater than, at most, at least, <math>&lt;</math>, <math>&gt;</math>, <math>=</math>, <math>\leq</math>, <math>\geq</math>.</li> <li>• Use place value concepts to represent, compare and order whole numbers using physical models, numerals and words, with ones, tens and hundreds.</li> <li>• Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> </ul>
<p><b>Lessons 15, 16</b> How can you use your knowledge of place value and basic facts to solve multi-digit subtraction problems?</p>	<p>Number, Number Sense and Operations</p>	<p>4  3  3  2  2</p>	<ul style="list-style-type: none"> <li>• Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> <li>• Add and subtract whole numbers with and without regrouping.</li> <li>• Evaluate the reasonableness of computations based upon operations and the numbers involved; e.g., considering relative size, place value and estimates.</li> <li>• Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> <li>• Use place value concepts to represent, compare and order whole numbers using physical models, numerals and words, with ones, tens and hundreds. For example:             <ul style="list-style-type: none"> <li>a. Recognize 10 can mean “10 ones” or a single entity (1 ten) through physical models and trading games.</li> </ul> </li> </ul>

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	Patterns, Functions and Algebra	3	<p><b>b.</b> Read and write 3-digit numerals (e.g., 243 as two hundred forty three, 24 tens and 3 ones, or 2 hundreds and 43 ones, etc.) and construct models to represent each.</p> <ul style="list-style-type: none"> <li>Use patterns to make predictions, identify relationships, and solve problems.</li> </ul>
<p><b>Lessons 17, 18</b> How can we use patterns as a problem-solving strategy to generate rules and make predictions?</p>	Patterns, Functions and Algebra	4	<ul style="list-style-type: none"> <li>Use models and words to describe, extend and make generalizations of patterns and relationships occurring in computation, numerical patterns, geometry, graphs and other applications.</li> </ul>
		4	<ul style="list-style-type: none"> <li>Represent and analyze patterns and functions using words, tables and graphs.</li> </ul>
		3	<ul style="list-style-type: none"> <li>Use patterns to make predictions, identify relationships, and solve problems.</li> </ul>
		3	<ul style="list-style-type: none"> <li>Create new patterns with consistent rules or plans, and describe the rule or general plan of existing patterns.</li> </ul>
	Number, Number Sense and Operations	2	<ul style="list-style-type: none"> <li>Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> </ul>
<p><b>Lessons 19, 20</b> How can we solve addition and subtraction problems using data from bar graphs?</p>	Data Analysis and Probability	3	<ul style="list-style-type: none"> <li>Read, interpret and construct bar graphs with intervals greater than one.</li> </ul>
		3	<ul style="list-style-type: none"> <li>Support a conclusion or prediction orally and in writing, using information in a table or graph.</li> </ul>
		3	<ul style="list-style-type: none"> <li>Add and subtract whole numbers with and without regrouping.</li> </ul>
		2	<ul style="list-style-type: none"> <li>Demonstrate fluency in addition facts with addends through 9 and corresponding subtractions; e.g., <math>9 + 9 = 18</math>, <math>18 - 9 = 9</math>.</li> </ul>
	Number, Number Sense and Operations	3	<ul style="list-style-type: none"> <li>Model, represent and explain multiplication; e.g., repeated addition, skip counting, rectangular arrays</li> </ul>

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<p>knowledge of doubling a number to help you master multiplication facts?</p>		<p>3 3 3</p>	<p>and area model.</p> <ul style="list-style-type: none"> <li>• Explain and use relationships between operations, such as relate addition to multiplication (repeated addition).</li> <li>• Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> <li>• Model and use the commutative and associative properties for addition and multiplication.</li> </ul>
<p><b>Lessons 23, 24</b> How can you use skip counting by multiples to find patterns on the hundreds chart and identify relationships among the patterns?</p>	<p>Number, Number Sense and Operations  Patterns, Functions and Algebra</p>	<p>4 3 3 3</p>	<ul style="list-style-type: none"> <li>• Identify and represent factors and multiples of whole numbers through 100, and classify numbers as prime or composite.</li> <li>• Model, represent and explain multiplication; e.g., repeated addition, skip counting, rectangular arrays and area model.</li> <li>• Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> <li>• Extend multiplicative and growing patterns, and describe the pattern or rule in words.</li> </ul>
<p><b>Lessons 25, 26</b> How can you use mental math strategies to multiply by multiples of 10 and 100?</p>	<p>Number, Number Sense and Operations</p>	<p>4 4 4 4</p>	<ul style="list-style-type: none"> <li>• Develop and explain strategies for performing computations mentally.</li> <li>• Identify and represent factors and multiples of whole numbers through 100, and classify numbers as prime or composite.</li> <li>• Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> <li>• Demonstrate fluency in adding and subtracting whole numbers and in multiplying and dividing whole numbers by 1- and 2-digit numbers and multiples of ten.</li> </ul>

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		3	<ul style="list-style-type: none"> <li>• Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> <li>• Identify and list factors, multiples, prime numbers, and composite numbers.</li> </ul>
<b>Lessons 27, 28</b> How can we use our knowledge of addition and division to find the mean distance a marble travels at a given height?	Data Analysis and Probability	5	<ul style="list-style-type: none"> <li>• Determine and use the range, mean, median and mode, and explain what each does and does not indicate about the set of data.</li> </ul>
	Number, Number Sense and Operations	3	<ul style="list-style-type: none"> <li>• Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> </ul>
	Measurement	3	<ul style="list-style-type: none"> <li>• Estimate and measure length, weight and volume (capacity), using metric and U.S. customary units, accurate to the nearest <math>\frac{1}{2}</math> or <math>\frac{1}{4}</math> unit as appropriate.</li> </ul>
<b>Lessons 29, 30</b> How can you use estimation to help you solve multiplication and division problems?	Number, Number Sense and Operations	4	<ul style="list-style-type: none"> <li>• Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> </ul>
		4	<ul style="list-style-type: none"> <li>• Demonstrate fluency in adding and subtracting whole numbers and in multiplying and dividing whole numbers by 1- and 2-digit numbers and multiples of ten.</li> </ul>
		4	<ul style="list-style-type: none"> <li>• Round whole numbers to a given place value.</li> </ul>
		4	<ul style="list-style-type: none"> <li>• Develop and explain strategies for performing computations mentally.</li> </ul>
		4	<ul style="list-style-type: none"> <li>• Demonstrate fluency in adding and subtracting whole numbers and in multiplying and dividing whole numbers by 1- and 2-digit numbers and multiples of ten.</li> </ul>
		3	<ul style="list-style-type: none"> <li>• Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> </ul>
		3	<ul style="list-style-type: none"> <li>• Evaluate the reasonableness of computations based upon operations and the numbers involved; e.g.,</li> </ul>

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			considering relative size, place value and estimates.
<b>Lessons 31, 32</b> How can you use your knowledge of place value to compare numbers and put them in correct order?	Number, Number Sense and Operations	4	<ul style="list-style-type: none"> <li>Use place value structure of the base-ten number system to read, write, represent and compare whole numbers through millions and decimals through thousandths.</li> </ul>
		3	<ul style="list-style-type: none"> <li>Use mathematical language and symbols to compare and order; e.g., less than, greater than, at most, at least, <math>&lt;</math>, <math>&gt;</math>, <math>=</math>, <math>\leq</math>, <math>\geq</math>.</li> </ul>
		3	<ul style="list-style-type: none"> <li>Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> </ul>
<b>Lessons 33, 34</b> How can you use computational skills of multiplying a 3-digit number by a 2-digit number to solve problems?	Number, Number Sense and Operations	4	<ul style="list-style-type: none"> <li>Analyze and solve multi-step problems involving addition, subtraction, multiplication and division using an organized approach, and verify and interpret results with respect to the original problem.</li> </ul>
		4	<ul style="list-style-type: none"> <li>Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> </ul>
		4	<ul style="list-style-type: none"> <li>Demonstrate fluency in adding and subtracting whole numbers and in multiplying and dividing whole numbers by 1- and 2-digit numbers and multiples of ten.</li> </ul>
		3	<ul style="list-style-type: none"> <li>Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> </ul>
		3	<ul style="list-style-type: none"> <li>Evaluate the reasonableness of computations based upon operations and the numbers involved; e.g., considering relative size, place value and estimates.</li> </ul>
<b>Lessons 35, 36</b> How can you use computational skills of dividing a 3-digit	Number, Number Sense and Operations	34	<ul style="list-style-type: none"> <li>Analyze and solve multi-step problems involving addition, subtraction, multiplication and division using an organized approach, and verify and interpret results with respect to the original problem.</li> </ul>

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<p>number by a 2-digit number to solve problems?</p>		<p>4 4 3 3</p>	<ul style="list-style-type: none"> <li>• Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> <li>• Demonstrate fluency in adding and subtracting whole numbers and in multiplying and dividing whole numbers by 1- and 2-digit numbers and multiples of ten.</li> <li>• Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> <li>• Evaluate the reasonableness of computations based upon operations and the numbers involved; e.g., considering relative size, place value and estimates.</li> </ul>
<p><b>Lessons 37, 38</b>          How can you use ordered pairs to identify locations on the grid?</p>	<p>Geometry and Spatial Sense           Number, Number Sense and Operations</p>	<p>4 3 3</p>	<ul style="list-style-type: none"> <li>• Specify locations and plot ordered pairs on a coordinate plane, using first quadrant points.</li> <li>• Find and name locations on a labeled grid or coordinate system; e.g., a map or graph.</li> <li>• Demonstrate fluency in multiplication facts through 10 and corresponding division facts.</li> </ul>
<p><b>Lessons 39, 40</b>          Which strategy can you use to solve multiplication and division problems?</p>	<p>Number, Number Sense and Operations</p>	<p>4 4 4 3</p>	<ul style="list-style-type: none"> <li>• Analyze and solve multi-step problems involving addition, subtraction, multiplication and division using an organized approach, and verify and interpret results with respect to the original problem.</li> <li>• Use a variety of methods and appropriate tools for computing with whole numbers; e.g., mental math, paper and pencil, and calculator.</li> <li>• Demonstrate fluency in adding and subtracting whole numbers and in multiplying and dividing whole numbers by 1- and 2-digit numbers and multiples of ten.</li> <li>• Demonstrate fluency in multiplication facts through</li> </ul>

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		3	10 and corresponding division facts. <ul style="list-style-type: none"><li>• Evaluate the reasonableness of computations based upon operations and the numbers involved; e.g., considering relative size, place value and estimates.</li></ul>
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